

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte HIROHISA A. TANAKA, GEOFFREY R. HENDREY  
and PHILIP J. KOOPMAN JR.

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U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 2005-2657  
Application No. 09/898,497

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HEARD: April 4, 2006

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Before FRANKFORT, LEVY, and NAPPI, Administrative Patent Judges.  
LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-33, which are all of the claims pending in this application.

We AFFIRM.

BACKGROUND

The appellants' invention relates to a method and apparatus for location-sensitive subsidized cell-phone billing (specification, page 1).

Claim 1 is representative of the invention, and is reproduced as follows:

1. A method for determining a billing rate of a mobile telecommunications connections associated with a mobile telecommunications unit (MU), comprising the steps of:

determining whether a location of the MU is inside or outside a predetermined subsidized zone;

responsive to a determination that the location of the MU is inside the subsidized zone, adjusting the billing rate for the telecommunications connection to a first predetermined billing rate; and

responsive to a determination that the MU is outside the predetermined subsidized zone, adjusting the billing rate for the telecommunications connection to a second predetermined billing rate.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Owensby	2002/0077130	Jun. 20, 2002
		(filed Dec. 10, 1998)

Jones	6,411,891	Jun. 25, 2002
		(filed Apr. 26, 2000)

Claims 1, 2, 4, 6-13, 15, 17-24, 26 and 28-33 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Owensby.

Claims 3, 5, 14, 16, 25 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Owensby in view of Jones.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the final rejection (mailed Feb. 27, 2004) and the answer (mailed Jan. 12, 2005) for the examiner's complete reasoning in support of the rejections, and to the brief (filed Oct. 29, 2004) and reply brief (filed Mar. 14, 2005) for the appellants' arguments thereagainst.

Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered. See 37 CFR § 41.37(c)(1)(vii)(eff. Sept. 13, 2004).

#### OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in

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reaching our decision, appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

Upon consideration of the record before us, we make the determinations which follow. We turn first to the rejection of claims 1, 2, 4, 6-13, 15, 17-24, 26 and 28-33 under 35 U.S.C. § 102(e) as being anticipated by Owensby. To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

The examiner's position is found on pages 2-5 of the final rejection.

Appellants assert (brief, page 3) that in Owensby, if a user does not accept advertisements, then no subsidy is applied. If a user agrees to accept advertisements, the ads are selected according to the demographic and personal preference information of the subscriber, including the location of the subscriber at the time of the call. It is argued (brief, page 4) that unlike Owensby, the invention adjusts the billing rate subject only to

the location of the mobile unit (MU). It is further asserted  
(id.) that:

[b]ecause Owensby teaches offering a subsidy in exchange for accepting advertisements, and [is] not responsive to a user's location, Owensby clearly does not describe each and every element as set forth in the claimed invention, either expressly or inherently as is required to support a rejection under 35 U.S.C. § 102(e).

The examiner responds (answer, page 3) that in Owensby, a cell phone user is offered a subsidized cell phone rate in response to the geographic location of the user. With respect to appellants' assertion (brief, page 4) that "the claimed invention changes the billing rate for the user subject only to the location of the MU," the examiner points out (answer, page 4) that the scope of the claims does not include the term "only" or any other similar modifying term. The examiner notes that in an amendment after final, appellants attempted to add the term "solely," but that this amendment to the claims was not entered by the examiner. The examiner adds (answer, page 5) that "[s]ince Appellant failed to limit the claims to a user receiving a cell phone subsidy for "only" or "solely" being located in a predetermined geographic [location], Owensby clearly anticipates the claims."

Appellants respond (reply brief, page 2) that "[w]hile Owensby may select the advertisement according to the location of the wireless mobile terminal, Owensby does not condition the subsidy on the location of the mobile terminal, as claimed." Appellants further asserts (id.) that "the determination of whether to grant the subsidy in Owensby is based only on whether the user agrees to receive the advertisement-not based on where the user is located." It is argued (reply brief, page 3) that the concept of subsidized zones is entirely absent from Owensby, and (reply brief, page 6) that "Applicant's position has always been that the 'responsive to' language clearly differentiates the claimed invention from Owensby."

Before addressing the examiner's rejection, it is an essential prerequisite that the claimed subject matter be fully understood. Analysis of whether a claim is patentable over the prior art begins with a determination of the scope of the claim. The properly interpreted claim must then be compared with the prior art. Claim interpretation must begin with the language of the claim itself. See, Smithkline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878, 882, 8 USPQ2d 1468, 1472 (Fed. Cir. 1988). Accordingly, we will initially direct our attention

to appellants' claim 1 to derive an understanding of the scope and content thereof.

From our review of the language of claim 1, we note that the transitional phrase "comprising" is open-ended, and the language "determining whether a location of the MU is inside or outside a predetermined subsidized zone" does not preclude the determination from being made after a determination of whether the cell phone subscriber agrees to accept advertisements before and/or during cell phone calls. We additionally find that the claim does not recite what the first and second predetermined billing rates are or how they compare to each other. Nor does the claim recite where the MU is located. The claim step simply determines whether the location of the MU is inside or outside a predetermined subsidized area. We additionally find that the "responsive" steps can be in either order, but that both steps must follow the "determining" step.

With this claim interpretation in mind, we turn to Owensby. From our review of the reference, we make the following findings of fact:

- (1) the invention relates to a system and method for inserting, before and during wireless mobile communications, commercial information or advertisements that are targeted to the subscriber of the wireless mobile communications service (para 2).

- (2) the messages are chosen from a database of pre-selected commercial information or advertisements and are targeted to the subscriber of the wireless mobile communications service on the basis of Wireless Mobile Location Data included with the call signal (id.).
- (3) the messages can be targeted to the subscriber of the wireless mobile communications service solely on the basis of the wireless mobile location of the terminal, and consequently, the geographical location of the subscriber (para 11).
- (4) the wireless mobile communication further comprises a unique Subscriber Identification Code that is likewise included with the call signal. The Subscriber Identification Code is assigned to the subscriber's wireless mobile terminal . . . (para 12).
- (5) The Subscriber Identification Code is used to identify predetermined Subscriber Profile Data pertaining to the subscriber and stored in an electronic database. Preferably, the Subscriber Profile Data includes demographic and personal preference data pertaining to the subscriber that is collected from the subscriber at the time the subscriber registers with the operator of the wireless mobile communications service . . . (id.).
- (6) the demographic data typically includes standard demographic information such as age, gender, race and national origin, but may include any demographic information selected by the sponsors of the messages to be targeted to the subscriber. The personal preference data typically includes general information relating to the individual preferences of the subscriber such as preferred types of food and kinds of entertainment, as well as any hobbies or interests the subscriber may have (para 13).
- (7) In a preferred embodiment of the invention, the messages are further targeted to the subscriber identified by the Subscriber Identification Code on the basis of the Subscriber Profile Data in addition to the Wireless Mobile location Data (id.).



- (8) The Call Management System includes an Ad Chooser Server for choosing the messages to be targeted to the subscriber . . . (para 17).
- (9) the Ad Chooser Server chooses the messages to be provided to the subscriber on the basis of the Wireless Mobile Location Data included with the call signal of the wireless mobile communication (para 18).
- (10) the Ad Chooser Server . . . chooses the messages to be provided to the subscriber on the basis of the predetermined Subscriber Profile Data pertaining to the subscriber in addition to the Wireless Mobile Location Data (para 19).
- (11) the Ad Chooser Server of the Call Management Systems operates in the same manner to choose the messages to be targeted to the subscriber on the basis of the Wireless Mobile Location Data, or on the basis of the Subscriber Profile Data in addition to the Wireless Mobile Location Data (para 24).
- (12) a principal object of the invention is to provide a system and method for targeting audio, video or electronic data messages, and in particular audio commercial information or advertisement, to a subscriber of a wireless mobile communications service (para 25).
- (13) A further, and still more particular object of the invention is to provide a system and method for subsidizing the cost of a wireless mobile communications service by inserting commercial information or advertisements before and during a wireless mobile communication that are targeted to the subscriber of the service on the basis of the wireless mobile location of the subscriber's wireless mobile terminal (para 32).
- (14) The method . . . comprises . . . (a) compiling a first electronic database consisting of a plurality of preselected messages and predetermined criteria for choosing a message to be targeted to the subscriber;

- . . . (c) extracting the call signal and the Wireless Mobile Location Data from the wireless mobile communication . . .  
(e) utilizing the predetermined criteria of the first database to choose a message from the plurality of preselected messages of the first database that is targeted to the subscriber on the basis of the Wireless Mobile Location Data; and (f) providing the targeted message to the subscriber (para 43).
- (15) the Wireless Mobile Location Data determines the wireless mobile location of the subscriber within a predetermined cell, or within a predetermined sector of a given cell, of the operator's network (para 45).
- (16) the Call Management System 20 comprises an Ad Chooser Server 22 for choosing the messages to be targeted to the subscriber (para 48).
- (17) The first database further includes predetermined criteria for choosing the messages to be targeted to the subscriber, referred to herein as Ad Target Data 25, from the pre-selected messages of the Ad Content Data 24 (para 52).
- (18) In the alternative embodiment . . . [t]he Subscriber Profile Data 26 preferably includes demographic and personal preference data pertaining specifically to the subscriber. For example, the demographic data typically includes standard demographic information such as age, gender, race and national origin, but may include any demographic information selected by the sponsors, typically advertisers, of the messages to be targeted to the subscriber (para 53).
- (19) The predetermined criteria of the Ad Target Data 25 is then compared to the Wireless Mobile Location Data and to the Subscriber Profile Data 26 to choose the messages to be targeted to the subscriber from the pre-selected messages of the Ad Content Data 24. Accordingly, the messages chosen by the Ad Chooser Server 22 from the Ad Content Data 24 based on the Ad Target Data 25 are further targeted to the subscriber corresponding to the wireless mobile terminal 12 identified by the Subscriber Identification Code on the

- basis of the predetermined Subscriber Profile Data 26. As such, the subscriber is provided with a message that is targeted to the subscriber on the basis of the predetermined Subscriber Profile Data 26 in addition to the wireless mobile location of the subscriber (para 54).
- (20) The subscriber billing program interfaces with the database management program to determine the Subscriber Billing Subsidy 30 to be applied to the subscriber account (para 60).
- (21) the operator of the service can offer subsidized wireless mobile communications to its subscribers while at the same time providing targeted advertising to its advertising customers (i.e., sponsors). In particular, the invention combines telecommunications marketing with the additional capability of targeting the advertisements to subscribers of a C/PCS or GMPCS based on the geographical location of the subscriber at the time that the call is initiated or received (id.).
- (22) the Candidate Discriminator Module 21 determines which subscribers are to be provided with targeted advertisements (para 61).
- (23) If the Candidate Discriminator Module 21 determines that the Subscriber Identification Code identifies a subsidized subscriber, the Candidate Discriminator Module passes the Switch Data to the information processing system where the Ad Selection Code Generator 23 generates the Ad Selection Code (id.).
- (24) If the subscriber elects to not receive or to cancel the advertisement within a predetermined elapsed time, an indication is made in the Ad Insert Records for the subscriber. As a result, the subscriber will be billed at the normal non-subsidized rate for the call and may be charged a small premium by the operator of the service (para 62).
- (25) The multiple-step process of the algorithm of the Call Routine Generator 27 is illustrated in **FIG. 4**, and may

occur in various sequences, or in parallel, as follows  
. . . (para 65).

- (26) the Wireless Mobile location Data of the Ad Selection Code is compared to the target locations of the Ad Target Data **25** to eliminate from further consideration those advertisements which have a wireless mobile location requirement that is not satisfied by the Ad Selection Code (para 66).
- (27) The multiple-step process of the algorithm of the Call Routine Generator **27** continues until . . . (para 67).
- (28) No advertisement is acceptable for insertion into the call on the basis of either the original or the reduced criteria established by the sponsors of the advertisements. In this instance, the Call Routine Generator **27** of the Call Management System **20** will insert a pre-recorded announcement to the subscriber stating that no sponsored advertisements are available to subsidize the call (para 71).
- (29) For subscribers who agree to receive one or more advertisements only at the beginning of a call, the Call Routine Generator **27** creates a call routine algorithm providing for a few minutes of subsidy, after which the can is no longer subsidized. For subscribers who agree to accept interruptions during a call, the Call Routine Generator **27** creates a call routine algorithm for managing the can which includes an appropriate number of advertisements, and identifies the intervals upon which the advertisements are to be inserted, such that the entire call may be subsidized (para 72).

From the disclosure (paragraph 24) that messages (ads) to be targeted to the user are based on the location of the subscriber's cell phone, we find that Owensby targets ads to the subscriber based on the location of the subscriber's cell phone. We also find from Owensby's disclosure (paragraph 18) that the Ad

Chooser chooses the messages to be provided to the subscriber on the basis of the location of the subscriber's cell phone. From the disclosure (paragraph 72) we find that subscribers who agree to receive one or more ads only at the beginning of a call, receive a few minutes of subsidy, whereas for subscribers who agree to accept interruptions within a call, the entire call may be subsidized. We find from this disclosure that different subsidies are provided depending on whether a subscriber is willing to receive ads before a call or before and during a call.

From the disclosure (paragraph 66) we find that the cell phone location is compared to the target locations of the Ad Target Data 25 to eliminate those ads which have a wireless mobile location requirement that is not satisfied by the Ad Selection Code. From the disclosure (paragraph 71) we find that the process of the Call Routine Generator 27 continues until, inter alia, no advertisement is acceptable for insertion into the call based on criteria established by the sponsors of the ads. In this instance, the Call Routine Generator will insert a pre-recorded announcement to the subscriber that no sponsored advertisements are available to subsidize the call.

From this disclosure, we find that in the embodiment where the Ad Chooser chooses the messages to be provided to the subscriber on the basis of the location of the subscriber's cell

phone, the system will be aware of the locations(s) where ads are available and the location(s) where ads are not available for insertion before or during a subscriber's cell phone calls. If the subscriber is in a location where no call subsidy and ads are available, a subscriber can choose to make the call without a subsidy, or travel to an area where a subsidy is available. Thus, we find that the system of Owensby, when dealing with subscribers who are willing to accept ads before and/or during a call, will determine whether the location of the cell phone (MU) is inside or outside a predetermined subsidized zone. If within a zone or calling area where ads (and subsidy) are available, the subscriber will receive the ads and subsidy, the amount of which is determined by the ads available and whether the subscriber will accept ads during a call in addition to before a call. If outside an area where ads (and subsidy) are available, the subscriber will not receive ads (or a subsidy) for the call. If the subscriber's cell phone is in a location where a subsidy is available, the call is billed at a predetermined billing rate. If the subscriber's cell phone is in a location where no subsidy is available, the subscriber is billed at a second predetermined (non-subsidized) billing rate. From all of the above, we agree with the examiner that the disclosure of Owensby meets the limitations of claim 1.

We are not persuaded by appellants' assertion (brief, page 4) that "the claimed invention changes the billing rate for the user subject only to the location of the MU." From the language of the claim, the claim is not limited to changing the billing rate subject only to the location of the MU, as the claim is broad enough to read on changing the billing rate based on the location of the MU, as well as on whether the user or subscriber is willing to accept ads. Accordingly, we are not persuaded by appellants' assertion (id.) that Owensby does not teach offering a subsidy responsive to a user's location.

For the same reasons, we are not persuaded by appellants' assertion (reply brief, page 2) that Owensby does not condition the subsidy on the location of the mobile terminal (cell phone). Nor do we agree with appellants' assertion (id.) that the determination of whether to grant a subsidy in Owensby is not based on where the user is located.

In addition, we are not persuaded by appellants' assertion (reply brief, page 4, footnote 1) that appellants' position has always been that the "responsive to" language clearly differentiates the claimed invention from Owensby. As found, supra, when a determination is made by the system of Owensby that a subscriber is outside a location where an ad or ads (and subsidy) are available, the subscriber's billing rate is adjusted

from a subsidized rate to billing at a non-subsidized rate, or the subscriber can choose to go to a different location where a subsidized call rate and ad or ads are available. If the subscriber is billed at the non-subsidized rate and then travels to an area where an ad or ads (and subsidy) are available, the subscriber's billing rate is adjusted to the subsidized billing rate, which is different from the rate billed if no subsidy is available.

From all of the above, we are not convinced of any error on the part of the examiner. We are cognizant of the differences between the disclosed inventions of appellants and Owensby. However, these differences are not found in appellants' claim 1. In prosecution before the examiner, there is no reason why appellants cannot amend the claims to distinguish over the teachings of Owensby. The rejection of claim 1 under 35 U.S.C. § 102(e) is affirmed.

Turning to claims 12 and 23, we note that appellants' arguments, discussed supra, are directed to these independent claims as well. Accordingly, we will sustain the rejection of independent claims 12 and 23 for the same reasons as we affirmed the rejection of claim 1. The rejection of claims 12 and 23 is affirmed.



Turning to dependent claims 2, 4, 6-11, 13, 15, 17-22, 24, 26 and 28-33, we note that these claims have not been separately argued by appellants and fall with the claims from which they depend. The rejection of claims 2, 4, 6-11, 13, 15, 17-22, 24, 26 and 28-33 is affirmed.

We turn next to the rejection of claims 3, 5, 14, 16, 25 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Owensby in view of Jones.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroval, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins &

Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

The examiner's position (final rejection, page 5) is that Owensby does not explicitly disclose alternative methods of determining the geographic location of the mobile unit. To overcome this deficiency of Owensby, the examiner turns to Jones for a teaching of:

the use of detecting the geographic location of a mobile telecommunications unit by [claim 3] longitude and latitude (see column 17, lines 8-10) and [claim 5] Universal Transverse Mercator (UTM) numbers (see column 17, lines 8-10).

Appellants' position (brief, page 5) is that the two references are not from an analogous art, and are not properly combinable. It is further asserted (id.) that even if the references could be properly combined, the combination would not teach the claimed invention because Jones does not cure the deficiencies of Owensby.

From our review of Jones we agree with the examiner, for the reasons set forth in the answer, that an artisan would have considered it obvious to determine location of the cell phone (MU) using latitude and longitude, instead of within a predetermined cell or a sector within a predetermined cell, as disclosed by Owensby (paragraph 45). Note that Owensby (para. 45) also discusses, in the case of GMPCS, using geo-positioning via a GPS satellite.

As to appellants' assertion that the references are not analogous art, we note that two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. In re Clay, 966 F.2d 656, 658-59, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992). See also In re Deminski, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986);

In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979).

From our review of Owensby, we find that the reference is analogous because the reference deals with giving subsidies to cell phone users, based on the geographic location of the cell phone (MU), if the user or subscriber is willing to listen to ads before or before and during cell phone calls. Although Jones is not in the same field of endeavor, we find that the reference meets the second prong of the test because the reference relates to determining the physical location of a subject or object with respect to a device such as a mobile phone. We agree with the examiner (answer, page 5) that Jones' teaching of various types of geographic location systems is analogous to Owensby's device which utilizes a geographic location system. We are not persuaded by appellants' assertion (brief, page 5) that Jones does not cure the defects of Owensby, because as we found, supra, Owensby meets the limitations of claim 1, from which claim 3 depends. From all of the above, we are not convinced of any error on the part of the examiner in rejecting claims 3, 5, 14, 16, 25 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Owensby in view of Jones. The rejection of claims 3, 5, 14, 16, 25 and 27 under 35 U.S.C. § 103(a) is affirmed.

To summarize, the decision of the examiner to reject claims 1, 2, 4, 6-13, 15, 17-24, 26 and 28-33 under 35 U.S.C. § 102(e) is affirmed. The decision of the examiner to reject claims 3, 5, 14, 16, 25 and 27 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

Charles E. Frankfort  
CHARLES E. FRANKFORT  
Administrative Patent Judge

*Stuart S. Levy*  
STUART S. LEVY  
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